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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,784	12/11/2003	Timo Tokkonen	KOLS.074PA	8180

7590 03/20/2007
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EXAMINER	
NEGRON, WANDA M	
ART UNIT	PAPER NUMBER
2622	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/733,784	Applicant(s) TOKKONEN ET AL.	
	Examiner Wanda M. Negrón	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-3 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Yamanaka et al. (US 5,760,832).**

3. Regarding **claim 1**, Yamanaka et al. disclose an imaging device (1) comprising at least two image capturing apparatus, i.e. a CCD that senses red and blue components (19) and two CCDs that sense green component (17, 18), each apparatus being arranged to produce an image, i.e. a R/B photo image and G1/G2 photo images (see col. 6, lines 58-67), wherein at least one first apparatus comprises a color filter matrix of red and blue elements, i.e. a sensor matrix of red and blue pixels (see figure 6), and at least one second apparatus comprises a green color filter, i.e. a sensor matrix of green pixels (see figure 5). It would be inherent to use a controller, i.e. a microprocessor, in order to form a full-color enhanced image by combining the images produced with each apparatus (see col. 13, lines 9-20).

4. Regarding **claim 2**, Yamanaka et al. disclose a controller, i.e. a control unit (20), arranged to produce a single color image from the image taken with the second apparatus, i.e. G1/G2 photo images (see col. 6, lines 58-67).

5. Regarding **claim 3**, Yamanaka et al. disclose that the second apparatus

comprises a color filter matrix of green elements, i.e. a sensor matrix of green pixels (see figure 5).

6. Method **claims 8-10** are drawn to the method of using the corresponding apparatus claimed in claims 1-2. Therefore method claims 8-10 correspond to apparatus claims 1-2 and are rejected for the same reasons of anticipation as used above.

7. **Claims 4-7 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Ogura et al. (US Pre-grant Application Publication 2002/0020845).**

8. Regarding **claim 4**, Ogura et al. disclose a lenslet array, i.e. small lenses disposed in the same plane (see elements 46 in figure 9), with at least three image capturing apparatus i.e. red, blue and green color picture cell arrays (2, 3, 4, 5) with their respective color filters (see paragraph [0052]), each apparatus being arranged to produce an image, wherein a first apparatus comprises a red color filter, a second apparatus comprises a blue color filter, and a third apparatus comprises a green color filter (see paragraph [0052]), each apparatus comprising an image sensor, i.e. red, blue and green color picture cell arrays (2, 3, 4, 5), wherein the image sensor of the third apparatus, interpreted as green color picture cell arrays 3 and 4 with their respective color filters, is larger, i.e. comprises double the area (see figure 2A), than the image sensors of the first and second apparatus, interpreted as red color picture cell array 2 and blue color picture cell array 5 each with their respective color filters. It would be inherent to use a controller, i.e. a microprocessor, in order to form a full-color enhanced image by combining the images produced with each apparatus.

9. Regarding **claim 5**, Ogura et al. disclose that the image sensor of the third apparatus is at least twice as large, i.e. comprises double the area (see figure 2A), as the image sensors of the first and second apparatus.

10. Regarding **claim 6**, Ogura et al. disclose a lenslet array, i.e. small lenses disposed in the same plane (see elements 46 in figure 9), with at least three image capturing apparatus i.e. red, blue and green color picture cell arrays (2, 3, 4, 5) with their respective color filters (see paragraph [0052]), each apparatus being arranged to produce an image, wherein a first apparatus comprises a red color filter, a second apparatus comprises a blue color filter, and a third apparatus comprises a green color filter (see paragraph [0052]), each apparatus comprising an image sensor consisting of pixels, i.e. red, blue and green color picture cell arrays (2, 3, 4, 5), wherein the number of pixels in the image sensor of the third apparatus, interpreted as green color picture cell arrays 3 and 4 with their respective color filters, is larger, i.e. comprises double the number of pixels (see figure 2A), than the number of pixels in the image sensors of the first and second apparatus, interpreted as red color picture cell array 2 and blue color picture cell array 5 each with their respective color filters. It would be inherent to use a controller, i.e. a microprocessor, in order to form a full-color enhanced image by combining the images produced with each apparatus.

11. Regarding **claim 7**, Ogura et al. disclose that the number of pixels in the image sensor of the third apparatus is at least twice as large, i.e. comprises double the number of pixels (see figure 2A), as the number of pixels in the image sensors of the first and second apparatus.


12. Method **claim 11** is drawn to the method of using the corresponding apparatus claimed in claim 6. Therefore method claim 11 corresponds to apparatus claim 6 and is rejected for the same reasons of anticipation as used above.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wanda M. Negrón whose telephone number is (571) 270-1129. The examiner can normally be reached on Mon-Fri 6:30 am - 4:00 pm alternate Fri off.

14. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

15. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wanda M. Negrón
March 14, 2007


LIN YE
PRIMARY PATENT EXAMINER